

REMARKS

Claims 1-26 are pending in this application.

Claim Objections

Claim 18 was objected to because of the following informalities:

Claim 18 contains this expression “A method as in claim 1 “and should be dependent on claim 10. The examiner considers the following character “1” within the above expression as a typographical error from the applicant.

In response, claim 18 is amended to properly cite to claim 10. The Applicant appreciates the Examiner noticing this error.

Claim Rejections Under 35 USC §102

Claims 1-6, 9-15, 18-23 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by *Kush* US Patent 6,874,144 (“Kush”).

Each of the pending independent claims call for determining whether to boost a priority of the application thread according to criteria **based on a status of I/O operations performed for the application thread** (emphasis added). *Kush* is concerned with situations where threads with a lower priority block threads with a higher priority. *Kush* does not disclose or describe a system where the decision on whether to boost a priority of the application thread is made based on the status of I/O operations performed for the application thread.

Kush looks at the priority of the threads and attempts to create a solution to avoid having lower priority threads block higher priority threads. In fact, *Kush* appears to be prone to the same problem that the pending claims are attempting to address, specifically, repeated switching between I/O threads and application threads. In *Kush*, whether a thread is an I/O thread or any other type of thread is immaterial. All that matters is the thread priorities. As this claimed element of looking to the status of I/O operations to decide whether to boost priority of the application thread is in all the independent claims and is not present in the prior art, a prima facie case of anticipation has not been made.

In addition, the claimed solution is quite elegant and an advancement over the prior art. While *Kush* has to maintain multiple lists and proceed through significant thread priority inheritance reviews, the claimed system focuses on the status of I/O operations performed for the application thread. Examples of when an application thread would be boosted include when no additional I/O operations are in the immediate future, when a given number of I/O operations have already been completed or if a given amount of time has passed since the application thread has been boosted. As a result of the claimed system, switching between I/O threads and applications threads is accomplished in a way to improve performance. The simplicity of the method reduces overhead in tracking the priority of various threads by focusing on I/O operations which limits the number of threads that need to be analyzed and tracked. This results in improved performance and is a patentable advancement over the prior art.

Claim Rejections Under 35 USC §103

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kush* in view of *Accapadi et al.* US Publication 2005/0022186 (“*Accapadi*”).

For the same reason as discussed in regard to the anticipation rejection, a prima facie case of obviousness has not been made against claims 7-8. Both *Kush* and *Accapadi* fail to disclose determining whether to boost a priority of the application thread according to criteria **based on a status of I/O operations performed for the application thread** (emphasis added) as called for in all the independent claims. *Accapadi* adds methods to boost certain threads when the threads are about to be blocked but it does not make a determination based on a status of I/O operations performed for the application thread.

As the element of determining whether to boost a priority of the application thread according to criteria **based on a status of I/O operations performed for the application thread** (emphasis added) is missing in the independent claims, it also is missing from dependent claims 7-8 and a prima facie case of obviousness has not been made.

CONCLUSION

In view of the above amendment and arguments, the applicant submits the pending application is in condition for allowance and an early action so indicating is respectfully requested.

The Commissioner is authorized to charge any fee deficiency required by this paper, or credit any overpayment, to Deposit Account No. 13-2855, under Order No. 30835/302629, from which the undersigned is authorized to draw.

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Respectfully submitted,

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